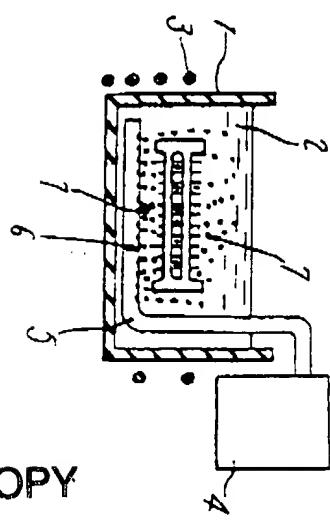


✓

(54) **WASHING METHOD FOR SILICON WAFER**  
 (11) Kokai No. 54-34751 (43) 3.14.1979 (19) JP  
 (21) Appl. No. 52-100473 (22) 8.24.1977  
 (71) HITACHI SEISAKUSHO K.K. (72) HIDEO SHIBUYA (1)  
 (52) JPC: 99(5)A04;99(5)C3  
 (51) Int. Cl<sup>2</sup>. H01L21/30

**PURPOSE:** To oxidize and remove foreign matter on a Si substrate surface while supplying O<sub>3</sub> into a washing solution.

**CONSTITUTION:** By heating NH<sub>4</sub>OH<sub>2</sub> up to 150°C, bubbles 7 of O<sub>3</sub> are made to come out from apertures 6 of tube 5 at the bottom. Next, jig 9 in which Si substrate 8 is installed in dipped for about ten minutes. At this time, the supply of O<sub>3</sub> is maintained constant. Therefore, much O<sub>3</sub> touches the substrate to increase the washing effect, and when the density of NH<sub>3</sub> in the washing solution is between 5 and 20%, the washing effect is highest.



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(64) **MANUFACTURE OF SEMICONDUCTOR DEVICE**  
 (11) Kokai No. 54-34752 (43) 3.14.1979 (19) JP  
 (21) Appl. No. 52-101877 (22) 8.24.1977  
 (71) SHIN NIPPON DENKI K.K. (72) YASUO HIGAMI